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#### Research Article

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## New faunistic records of *Diceratura* Diakonoff in Turkey (*Tortricidae, Lepidoptera*)

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**Abstract:** New faunistic records of *Diceratura* Diakonoff in Turkey (*Tortricidae, Lepidoptera*). Cesa News 152: 1-4, 10 figs. 1 Table.

Faunistical cases of six *Diceratura* species are discussed. Two species, *Diceratura teheranica* Raz., *D. keredjana* Raz. are reported here as new to Turkey. The latter is also recorded as new to Van, Gaziantep, and Şırnak Provinces, while the former new to Van Province as well. *Diceratura ostrinana* Gn is recorded in Van Province for the first time. The male genitalia and adults of newly recorded species are illustrated.

**Keywords:** *Lepidoptera, Tortricidae, Diceratura, fauna, Van, Turkey.*

Within the several research programs announced, the Lepidoptera of Turkey has been studying by the authors for a long time. Among the lepidopteran families in Turkey, *Tortricidae* is one of the little known group. With the intention of starting the faunistical studies on this family, nine years ago, the authors listed 457 species from Turkey. Among the list of two thousand species of pterygot insects in Van Province, the authors gave 34 tortricid species (Koçak & Kemal, 2012). The authors evaluated faunistically 8 tortricid species in the illustrated and annotated list on the Entomofauna of Gören Mount (Van Province, East Turkey) (Kemal & Koçak, 2014). Two years later, in the new and little known Tortricidae for the fauna of East Turkey, the authors reported new faunistical records, and early stages of several tortricids, together with illustrations of genitalic preparations (Kemal & Koçak, 2016). Two new cochylid species for the fauna of Turkey are reported by the authors (Kemal & Koçak, 2017a). Recently, among the Microlepidoptera of Bahçesaray district (Van Pr.), 32 tortricid species are evaluated by the authors (Kemal & Koçak, 2017b). According to our database program, the total number of the tortricid species in Turkey, is 506, after revising and

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evaluating the literary data, and also authors' contributions up to the present time. As a result of all these calculations, the *Cochylini* species in Turkey rose to 123 species (Infosystem of the Cesa)<sup>2</sup>.

### ***Cochylini* Guenée, 1845**

*Cochylidi* Guenée, 1845, Annls Soc. ent. Fr. (2) 3: 297-298. Type-genus: *Cochylis* Tr.

### ***Diceratura* Diakonoff, 1929**

The genus, one of the smallest *Cochylini* in size of the West Palearctic, was established by Diakonoff (1929), with the type-species *Eupoecilia ostrinana* Gn., 1845.

It is closely related with the genus *Cochylidia* Obraztsov, 1956 but distinguished by the male genitalia. Faunistically, *Diceratura* is very poorly known in Turkey. It is currently represented by five species in Europe (Razowski, 2009). Before this publication, it was represented by four species in Turkey, i.e., *roseofasciana* Mnn., *infantana* Kenn., *rhodograpta* Diak., and *ostrinana* Gn. In the recent years, *roseofasciana* Mnn was reported by the authors from Hazro (Diyarbakır Pr.) (Kemal & Koçak, 2015: figs. 55,67), while *ostrinana* Gn. from Mutki (Bitlis Pr.) (Kemal & Koçak, 2017e: figs. 91,92). With the two new records for the fauna of Turkey (see below), total number of *Diceratura* in Turkey rose to six (**Table 1**).

To identify the *Diceratura* species from the external features, colouration etc. is difficult and risky; therefore comparison of the genital morphology is highly recommended.

The species of this genus inhabit especially in the mountainous steppe. Razowski (2009) stated about the living places of the *Diceratura* species occurring in Turkey as "Habitat not known", with the exception of *ostrinana* Gn. Therefore, we added here the images of the collecting places of the recorded *Diceratura* species as habitats. For the collecting place at Uzunargit (Hazro, Diyarbakır Pr.) for the species *Diceratura roseofasciana* Mnn, *vide* Kemal & Koçak (2015: fig.3). For the openings of *Pistacia* plantations as a habitat of *D. keredjana* at Nizip (Gaziantep Pr.), *vide* Kemal & Koçak (2017d: figs.1,2).

### ***Diceratura keredjana* Razowski, 1963 (Figs. 1-6)**

*Diceratura keredjana* Razowski, 1963, Acta zool. cracov. 8: 273, figs. 61-64. Holotype ♂. Iran, Elburzgebirge, Keredj, 6 vi 1939, leg. F. Brandt (LNK).

Material examined: 1♂ (fw 6.5mm, GP2816♂). East Turkey, Van Pr. Gürpınar, Çat Dağı 2005m, 3.4km SE Kuşdağı (65Gy), nocturnal, 20 6 2017; 1♂ (fw 5mm, GP2819♂). South Turkey, Gaziantep Pr. Nizip Turlu 1km SE 560m (27Da), nocturnal, 22 4 2017; 1♂ (fw 4.5mm, GP2820♂). South Turkey, Şırnak Pr. Beytüşşebap, Komato 1065m (73Ak), nocturnal, 3 5 2013; M. Kemal & A. Koçak leg. (Cesa)

Razowski described this species from Northern Iran (Keredj), based upon a single male collected by F. Brandt in 1939. Since that time, no new faunistic information about this species was published, with the following taxonomic exception: Razowski (1970) synonymized *keredjana* with *roseofasciana* Mann, 1855 with doubt. But yet, Razowski considered in 2009 *keredjana* as a valid name again. The male genitalia of these two species under discussion, given by Razowski (2009), discriminate them very well.

Forewing (fw): Size variable, 4.5-6.5mm.

Adult phenology: April-June.

Vertical distribution: 560-2005m.

Habitat: Lowland, openings of *Pistacia* plantations; rocky steep slopes; upper heights of mountainous tragacanthic-malacophyllous steppe.

This species is new to the Lepidoptera fauna of Turkey, as well as Van, Gaziantep (cf. Kemal & Koçak, 2017d), and Şırnak Provinces.

### ***Diceratura ostrinana* (Guenée, 1845) (Figs. 7,9)**

*Eupoecilia ostrinana* Guenée, 1845, Annls Soc. ent. Fr. (2) 3: 299. Lectotype ♀ (designated by Razowski, 1970): France, Dept. Eure et Loir, Chateaudun (BMNH).

Material examined: 1♂ (fw 7mm, GP2815♂). East Turkey, Van Pr. Çatak, Saklıvadi 2030m (65Df), nocturnal, 25 7 2016, M. Kemal & A. Koçak leg. (Cesa)

<sup>2</sup> <http://www.cesa-tr.org/Infos.htm>

The species was recently reported from Bitlis Pr. (Mutki, Aydemir) for the first time (Kemal & Koçak, 2017e).

Adult phenology: July.

Vertical distribution: 2030m.

Habitat: Upper heights of mountainous tragacanthic-malacophyllous steppe.

The present record of this species is new to the Lepidoptera fauna of Van Province (Kemal & Koçak, 2017b).

### **Diceratura teheranica Razowski, 1970 (Figs. 8, 10)**

*Diceratura teheranica* Razowski, 1970, *Microlepid. Pal.* 3: 395, pls. 24, 102, fig. 258. Holotype ♂. Iran, Derbend, 25km N of Teheran, leg. Kasy & Vartian (NHMW).

Material examined: 1♂ (fw 5mm, GP2814♂). East Turkey, Van Pr. Çatak, Darboğaz 2030m, nocturnal, 30.6.2016, M. Kemal & A. Koçak leg. (Cesa)

Razowski described this species from Northern Iran (Teheran, Derbend), based upon a male (holotype), and two females (paratypes) collected by Kasy & Vartian. Thenceforth, no new information about this species was published.

Adult phenology: June.

Vertical distribution: 2030m.

Habitat: upper heights of mountainous tragacanthic-malacophyllous steppe.

This species is new to the Lepidoptera fauna of Turkey.

**Table 1 – Faunistical synopsis of 6 *Diceratura* species in Turkey**

Species	Localities in Turkey	References
<i>roseofasciana</i>	Adana, Amasya, Ankara, Bursa, Hatay, Konya, Kahramanmaraş; Hazro (Diyarbakır)	Info-system Cesa; Kemal & Koçak (2015)
<i>infantana</i>	Malatya	Info-system Cesa
<i>rhodograpta</i>	Amasya, Ankara, Burdur, İçel, Konya	Info-system Cesa
<i>keredjana</i>	Çat Dağı (Van), Nizip (Gaziantep), Beytüssebap (Şırnak)	present paper
<i>teheranica</i>	Darboğaz (Van)	present paper
<i>ostrinana</i>	Bursa, Kahramanmaraş, Mutki (Bitlis), Saklıvadi (Van)	Kemal & Koçak (2017d); present paper

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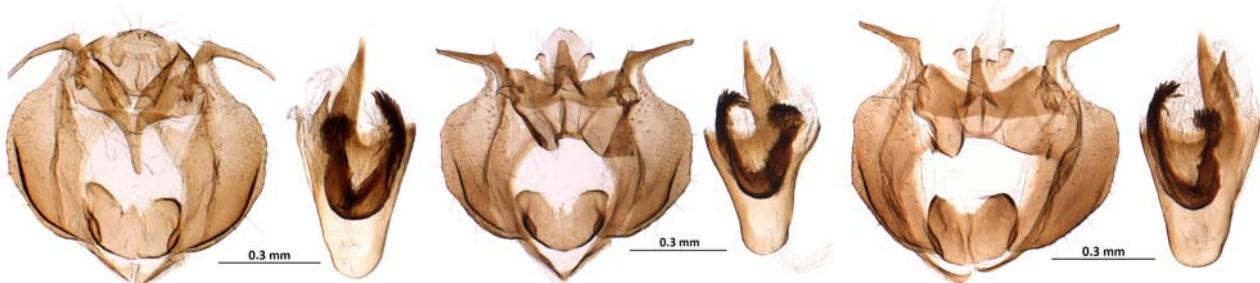
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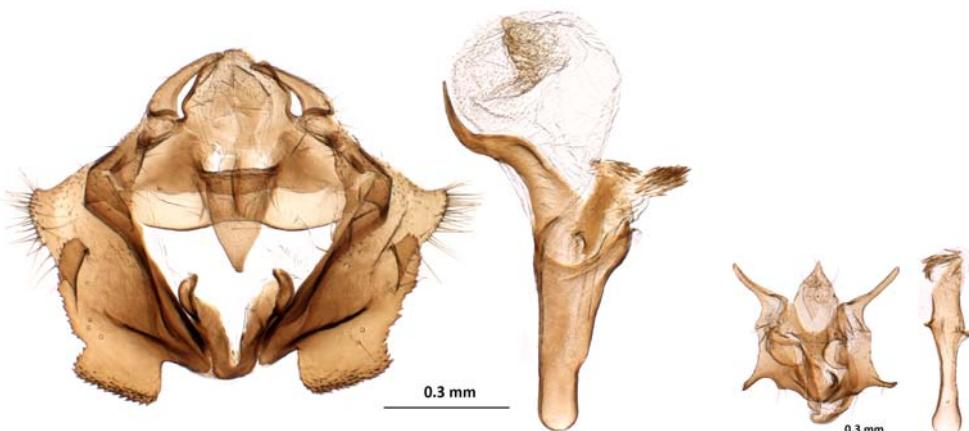
**Figs. 1-3** - Uppersides of the right wings of three specimens of *Diceratura keredjana*: Gürpinar, Çat Dağı (Van Pr.) , GP2816♂ (left), Nizip (Gaziantep Pr.), GP2819♂ (middle); Beytüssebap (Şırnak Pr.), GP2820♂ (right). For their genitalia see below, M. Kemal (Cesa)



**Figs. 4-6** – Male genitalia of three specimens of *Diceratura keredjana*. Gürpinar, Çat Dağı (Van Pr.) , GP2816♂ (left), Nizip (Gaziantep Pr.), GP2819♂ (middle); Beytüssebap (Şırnak Pr.), GP2820♂ (right). For their adults see above, M. Kemal (Cesa)



**Figs. 7-8** - Uppersides of the right wings of *Diceratura* species: *ostrinana* (left), *teheranica* (right). For their genitalia see below, M. Kemal (Cesa)



**Figs. 9-10** - Male genitalia of two *Diceratura* species: *D. ostrinana*, GP2815♂. Van Pr. Çatak, Saklıvadi 2030m, 25 7 2016 (left); *D. teheranica*, GP2814♂. Van Pr. Çatak, Darboğaz 2030m, 30 6 2016 (right). The latter species is not only characterized by its morphological features, but also smallest size of the male genitalia. M. Kemal (Cesa)

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